

METHOD AND APPARATUS FOR PROCESSING
SIGNALS IN AN ARRAY ANTENNA SYSTEM

ABSTRACT OF THE DISCLOSURE

5 An antenna system (10), includes a plurality of
antenna elements (21-25). Respective analog signals
corresponding to respective antenna elements are
subjected to respective phase shifts, are digitized using
one-bit samples, are then subjected to an equal and
opposite phase shift, and are subsequently combined so
10 that the fundamental components add coherently and the
harmonic components add noncoherently. A digital-to-
analog converter is supplied with successive samples, and
produces in response to each sample a pulse having a
duration which is less than the time period between
successive samples.